

The schematic diagram illustrates a semiconductor device 100. A central circuit block 5 contains several functional blocks: a first block 11 with sub-components 11a, 11b, and 11c; a second block 12 with sub-components 12a and 12b; a third block 13 with sub-components 13a and 13b; a fourth block 14 with sub-components 14a and 14b; a fifth block 20 with sub-components 20a, 20b, and 20c; and a sixth block 30 with sub-components 30a and 30b. The device is connected to external components: a first external block 100, a second external block 200, a third external block 300, and a fourth external block 400. The device also includes a first input/output terminal 110, a second input/output terminal 120, a third input/output terminal 130, and a fourth input/output terminal 140. The device is further connected to a first power supply 150, a second power supply 160, a third power supply 170, and a fourth power supply 180. The device is also connected to a first signal line 190, a second signal line 210, a third signal line 230, and a fourth signal line 250. The device is further connected to a first control line 260, a second control line 270, a third control line 280, and a fourth control line 290. The device is also connected to a first clock line 300, a second clock line 310, a third clock line 320, and a fourth clock line 330. The device is further connected to a first data line 340, a second data line 350, a third data line 360, and a fourth data line 370. The device is also connected to a first address line 380, a second address line 390, a third address line 400, and a fourth address line 410. The device is further connected to a first chip select line 420, a second chip select line 430, a third chip select line 440, and a fourth chip select line 450. The device is also connected to a first enable line 460, a second enable line 470, a third enable line 480, and a fourth enable line 490. The device is further connected to a first reset line 500, a second reset line 510, a third reset line 520, and a fourth reset line 530. The device is also connected to a first interrupt line 540, a second interrupt line 550, a third interrupt line 560, and a fourth interrupt line 570. The device is further connected to a first status line 580, a second status line 590, a third status line 600, and a fourth status line 610. The device is also connected to a first error line 620, a second error line 630, a third error line 640, and a fourth error line 650. The device is further connected to a first warning line 660, a second warning line 670, a third warning line 680, and a fourth warning line 690. The device is also connected to a first debug line 700, a second debug line 710, a third debug line 720, and a fourth debug line 730. The device is further connected to a first test line 740, a second test line 750, a third test line 760, and a fourth test line 770. The device is also connected to a first calibration line 780, a second calibration line 790, a third calibration line 800, and a fourth calibration line 810. The device is further connected to a first configuration line 820, a second configuration line 830, a third configuration line 840, and a fourth configuration line 850. The device is also connected to a first update line 860, a second update line 870, a third update line 880, and a fourth update line 890. The device is further connected to a first backup line 900, a second backup line 910, a third backup line 920, and a fourth backup line 930. The device is also connected to a first restore line 940, a second restore line 950, a third restore line 960, and a fourth restore line 970. The device is further connected to a first backup line 980, a second backup line 990, a third backup line 1000, and a fourth backup line 1010. The device is also connected to a first restore line 1020, a second restore line 1030, a third restore line 1040, and a fourth restore line 1050. The device is further connected to a first backup line 1060, a second backup line 1070, a third backup line 1080, and a fourth backup line 1090. The device is also connected to a first restore line 1100, a second restore line 1110, a third restore line 1120, and a fourth restore line 1130. The device is further connected to a first backup line 1140, a second backup line 1150, a third backup line 1160, and a fourth backup line 1170. The device is also connected to a first restore line 1180, a second restore line 1190, a third restore line 1200, and a fourth restore line 1210. The device is further connected to a first backup line 1220, a second backup line 1230, a third backup line 1240, and a fourth backup line 1250. The device is also connected to a first restore line 1260, a second restore line 1270, a third restore line 1280, and a fourth restore line 1290. The device is further connected to a first backup line 1300, a second backup line 1310, a third backup line 1320, and a fourth backup line 1330. The device is also connected to a first restore line 1340, a second restore line 1350, a third restore line 1360, and a fourth restore line 1370. The device is further connected to a first backup line 1380, a second backup line 1390, a third backup line 1400, and a fourth backup line 1410. The device is also connected to a first restore line 1420, a second restore line 1430, a third restore line 1440, and a fourth restore line 1450. The device is further connected to a first backup line 1460, a second backup line 1470, a third backup line 1480, and a fourth backup line 1490. The device is also connected to a first restore line 1500, a second restore line 1510, a third restore line 1520, and a fourth restore line 1530. The device is further connected to a first backup line 1540, a second backup line 1550, a third backup line 1560, and a fourth backup line 1570. The device is also connected to a first restore line 1580, a second restore line 1590, a third restore line 1600, and a fourth restore line 1610. The device is further connected to a first backup line 1620, a second backup line 1630, a third backup line 1640, and a fourth backup line 1650. The device is also connected to a first restore line 1660, a second restore line 1670, a third restore line 1680, and a fourth restore line 1690. The device is further connected to a first backup line 1700, a second backup line 1710, a third backup line 1720, and a fourth backup line 1730. The device is also connected to a first restore line 1740, a second restore line 1750, a third restore line 1760, and a fourth restore line 1770. The device is further connected to a first backup line 1780, a second backup line 1790, a third backup line 1800, and a fourth backup line 1810. The device is also connected to a first restore line 1820, a second restore line 1830, a third restore line 1840, and a fourth restore line 1850. The device is further connected to a first backup line 1860, a second backup line 1870, a third backup line 1880, and a fourth backup line 1890. The device is also connected to a first restore line 1900, a second restore line 1910, a third restore line 1920, and a fourth restore line 1930. The device is further connected to a first backup line 1940, a second backup line 1950, a third backup line 1960, and a fourth backup line 1970. The device is also connected to a first restore line 1980, a second restore line 1990, a third restore line 2000, and a fourth restore line 2010. The device is further connected to a first backup line 2020, a second backup line 2030, a third backup line 2040, and a fourth backup line 2050. The device is also connected to a first restore line 2060, a second restore line 2070, a third restore line 2080, and a fourth restore line 2090. The device is further connected to a first backup line 2100, a second backup line 2110, a third backup line 2120, and a fourth backup line 2130. The device is also connected to a first restore line 2140, a second restore line 2150, a third restore line 2160, and a fourth restore line 2170. The device is further connected to a first backup line 2180, a second backup line 2190, a third backup line 2200, and a fourth backup line 2210. The device is also connected to a first restore line 2220, a second restore line 2230, a third restore line 2240, and a fourth restore line 2250. The device is further connected to a first backup line 2260, a second backup line 2270, a third backup line 2280, and a fourth backup line 2290. The device is also connected to a first restore line 2300, a second restore line 2310, a third restore line 2320, and a fourth restore line 2330. The device is further connected to a first backup line 2340, a second backup line 2350, a third backup line 2360, and a fourth backup line 2370. The device is also connected to a first restore line 2380, a second restore line 2390, a third restore line 2400, and a fourth restore line 2410. The device is further connected to a first backup line 2420, a second backup line 2430, a third backup line 2440, and a fourth backup line 2450. The device is also connected to a first restore line 2460, a second restore line 2470, a third restore line 2480, and a fourth restore line 2490. The device is further connected to a first backup line 2500, a second backup line 2510, a third backup line 2520, and a fourth backup line 2530. The device is also connected to a first restore line 2540, a second restore line 2550, a third restore line 2560, and a fourth restore line 2570. The device is further connected to a first backup line 2580, a second backup line 2590, a third backup line 2600, and a fourth backup line 2610. The device is also connected to a first restore line 2620, a second restore line 2630, a third restore line 2640, and a fourth restore line 2650. The device is further connected to a first backup line 2660, a second backup line 2670, a third backup line 2680, and a fourth backup line 2690. The device is also connected to a first restore line 2700, a second restore line 2710, a third restore line 2720, and a fourth restore line 2730. The device is further connected to a first backup line 2740, a second backup line 2750, a third backup line 2760, and a fourth backup line 2770. The device is also connected to a first restore line 2780, a second restore line 2790, a third restore line 2800, and a fourth restore line 2810. The device is further connected to a first backup line 2820, a second backup line 2830, a third backup line 2840, and a fourth backup line 2850. The device is also connected to a first restore line 2860, a second restore line 2870, a third restore line 2880, and a fourth restore line 2890. The device is further connected to a first backup line 2900, a second backup line 2910, a third backup line 2920, and a fourth backup line 2930. The device is also connected to a first restore line 2940, a second restore line 2950, a third restore line 2960, and a fourth restore line 2970. The device is further connected to a first backup line 2980, a second backup line 2990, a third backup line 3000, and a fourth backup line 3010. The device is also connected to a first restore line 3020, a second restore line 3030, a third restore line 3040, and a fourth restore line 3050. The device is further connected to a first backup line 3060, a second backup line 3070, a third backup line 3080, and a fourth backup line 3090. The device is also connected to a first restore line 3100, a second restore line 3110, a third restore line 3120, and a fourth restore line 3130. The device is further connected to a first backup line 3140, a second backup line 3150, a third backup line 3160, and a fourth backup line 3170. The device is also connected to a first restore line 3180, a second restore line 3190, a third restore line 3200, and a fourth restore line 3210. The device is further connected to a first backup line 3220, a second backup line 3230, a third backup line 3240, and a fourth backup line 3250. The device is also connected to a first restore line 3260, a second restore line 3270, a third restore line 3280, and a fourth restore line 3290. The device is further connected to a first backup line 3300, a second backup line 3310, a third backup line 3320, and a fourth backup line 3330. The device is also connected to a first restore line 3340, a second restore line 3350, a third restore line 3360, and a fourth restore line 3370. The device is further connected to a first backup line 3380, a second backup line 3390, a third backup line 3400, and a fourth backup line 3410. The device is also connected to a first restore line 3420, a second restore line 3430, a third restore line 3440, and a fourth restore line 3450. The device is further connected to a first backup line 3460, a second backup line 3470, a third backup line 3480, and a fourth backup line 3490. The device

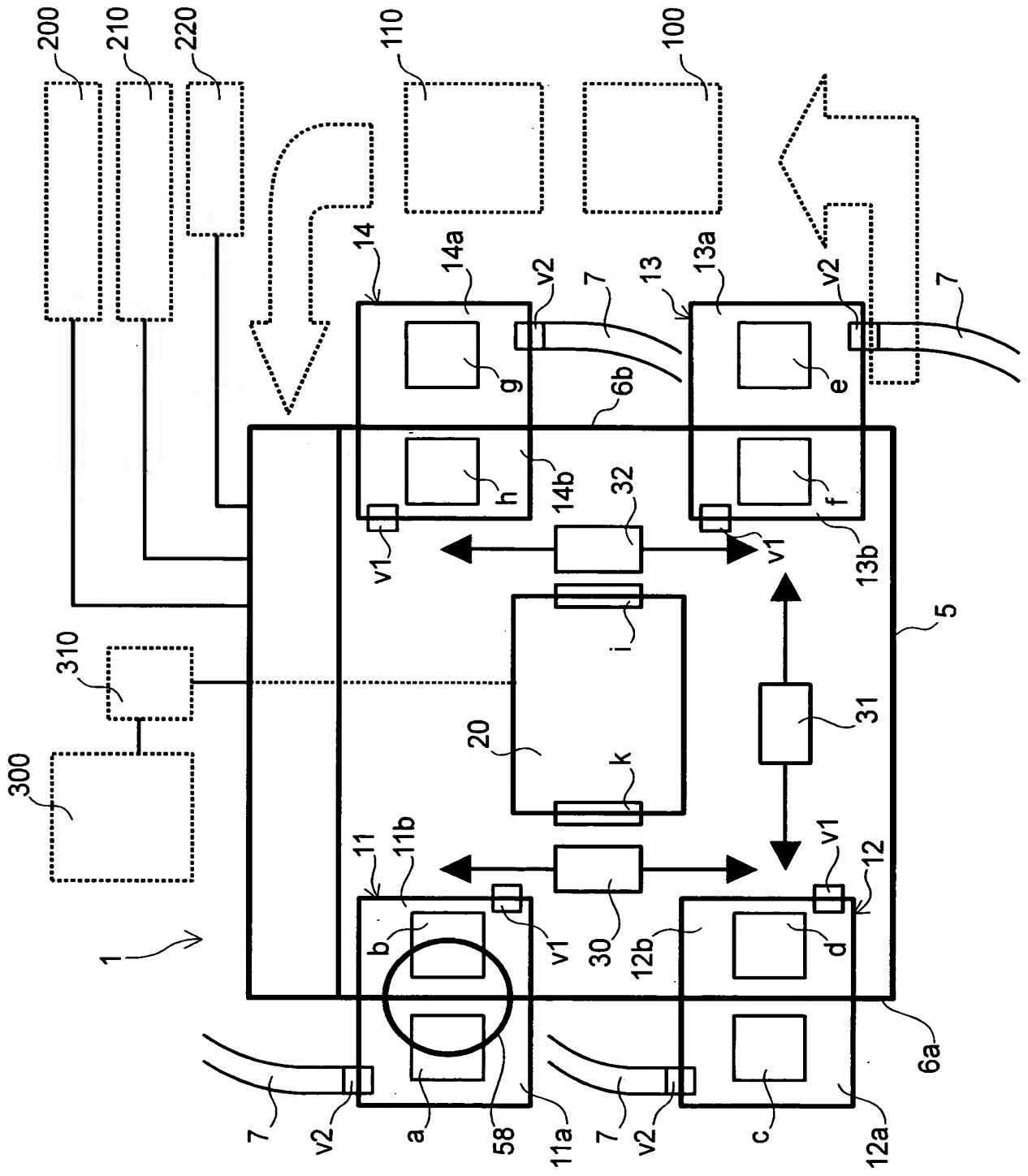


FIG.2

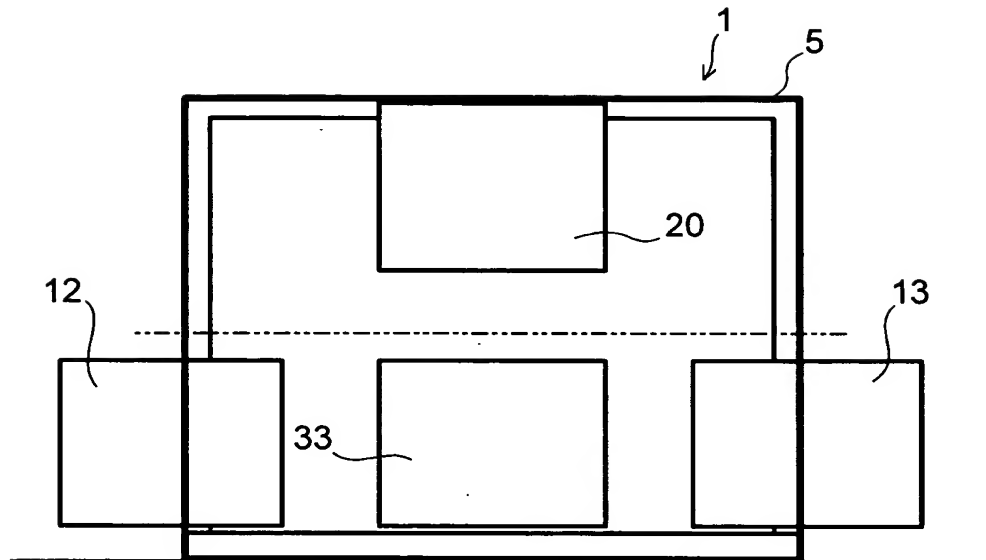


FIG.3

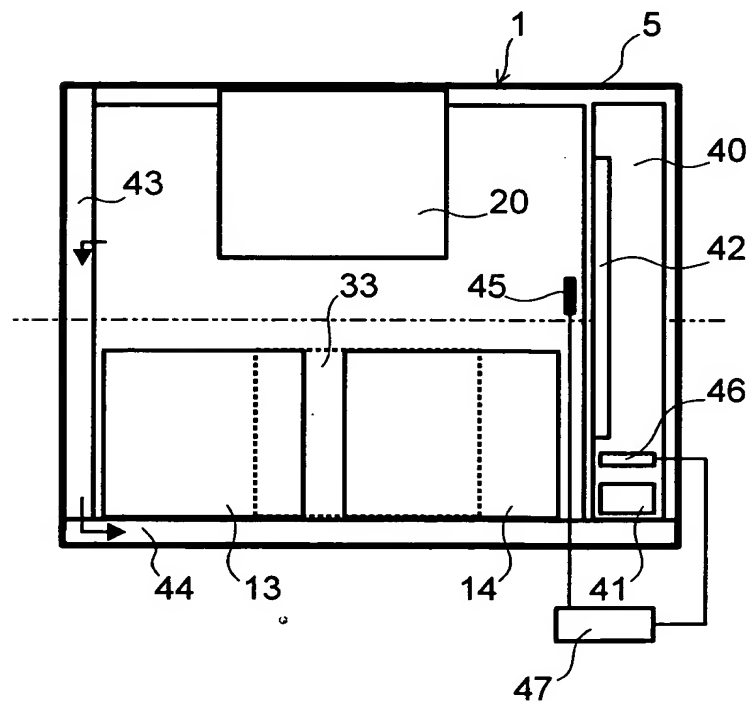


FIG.4(a)

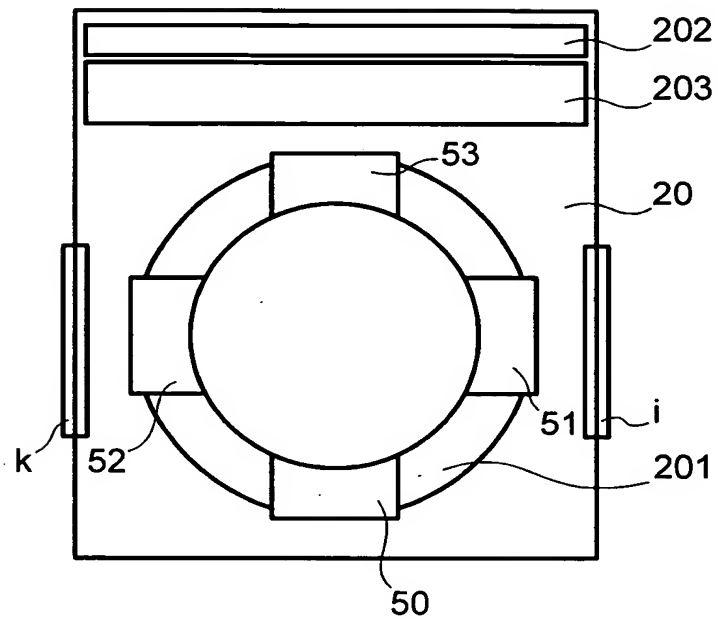


FIG.4(b)

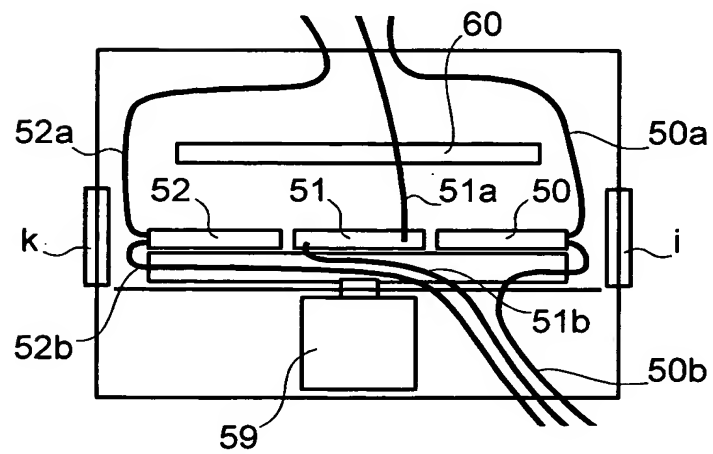


FIG.5

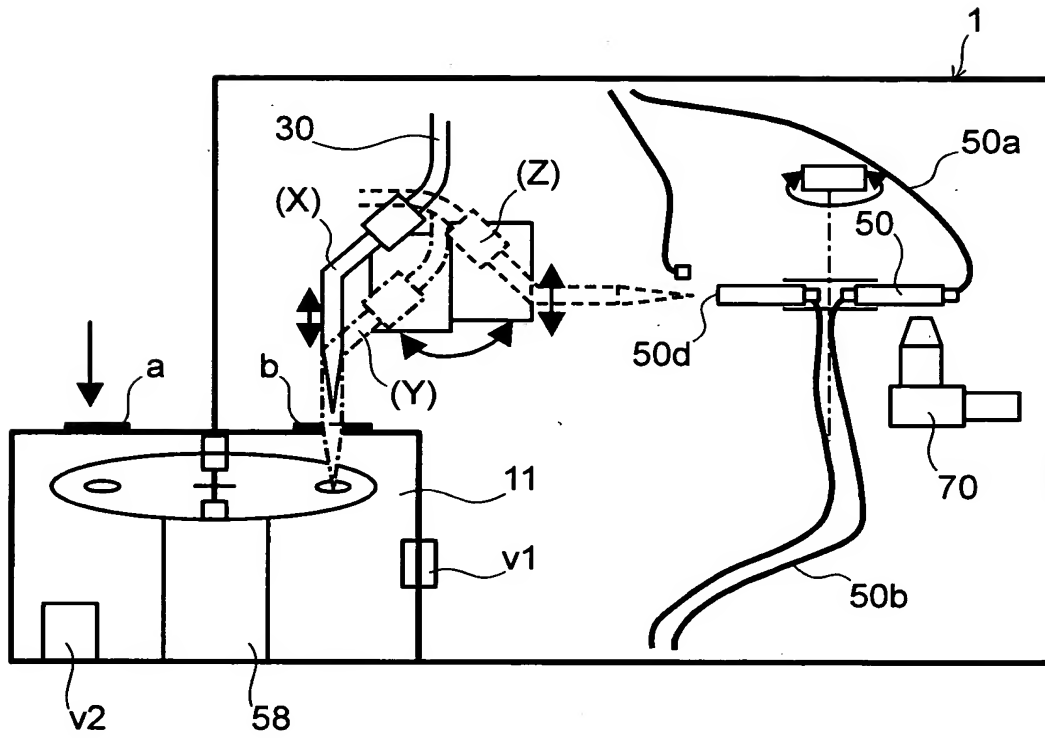


FIG.6

